



Instructions

Congratulations for buying your LAN-interface for ERC-M. This document will guide you through the needed steps for assembly and configuration of the LAN-interface. You will reach the best result by following these instructions step by step.

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Safety-Instructions



- Don't continue using the product if it is damaged.
- Keep electronic assemblies and components away from children!
- Products that carry electric voltages must be handled by taking care about the valid instructions and regulations.
- If the product must be repaired, only use original spare parts! Using different parts may cause property damage and personal injury! The repair has only to be done by an expert!
- The installation has to be done by a skilled expert.
- Connection-cables have to be chosen according to the needed diameter.
- Before working on the product all supply-voltages have to be securely cut of.
- The product is designed to work in clean and dry areas inside buildings.
- Prevent the product of humidity, water and heat.
- Don't use the product in areas where explosive gases, vapour or dust are or may occur.
- Don't let the product fall or apply mechanical stress as the product may be damaged.



1. LAN-Interface for ERC-M Kit

1.1 Bill of material

The BOM is in the order how you should use the parts.

LAN-interface for ERC-M Kit Bill Of Material				
QTY	Type	Value	Reference	Comments
2	Capacitor ceramic	100n 50V 20%	C15,C16	
1	Capacitor Tantal	1u 35V 20%	C23	
2	Resistor	10K 5%	R1,R12	alt. 10K 1%
1	Diode	1N4004	D12	alt. 1N4007
1	Diode	BAT48	D7	
1	XPORT	1001001-04R	XP1	alt. 1001000-04R
1	DC/DC	12V 3.3V 1W	DC1	
1	Patchcable	2m Crossover		

1.2 Assembly

Assemble and solder the components according to the following drawings. The components to be assembled are marked blue in the following drawings.

Please read the following instructions before you start:

1. The vertical assembled Diodes should have a distance (1-2mm) to the PCB while soldering. Otherwise there is the risk of overheating these components while soldering.

2. Take care of polarization of the following components :

- Diode D7,D12
- DC/DC DC1
- Capacitor tantal C23

Those components are marked red in the following drawing.

It is important to solder the ground-lugs of the XPORT properly as they are used for heat-dissipation from the XPORT to the printed board.

Components :

Colour-code of Resistors:

10K 5% brown-black-orange-gold

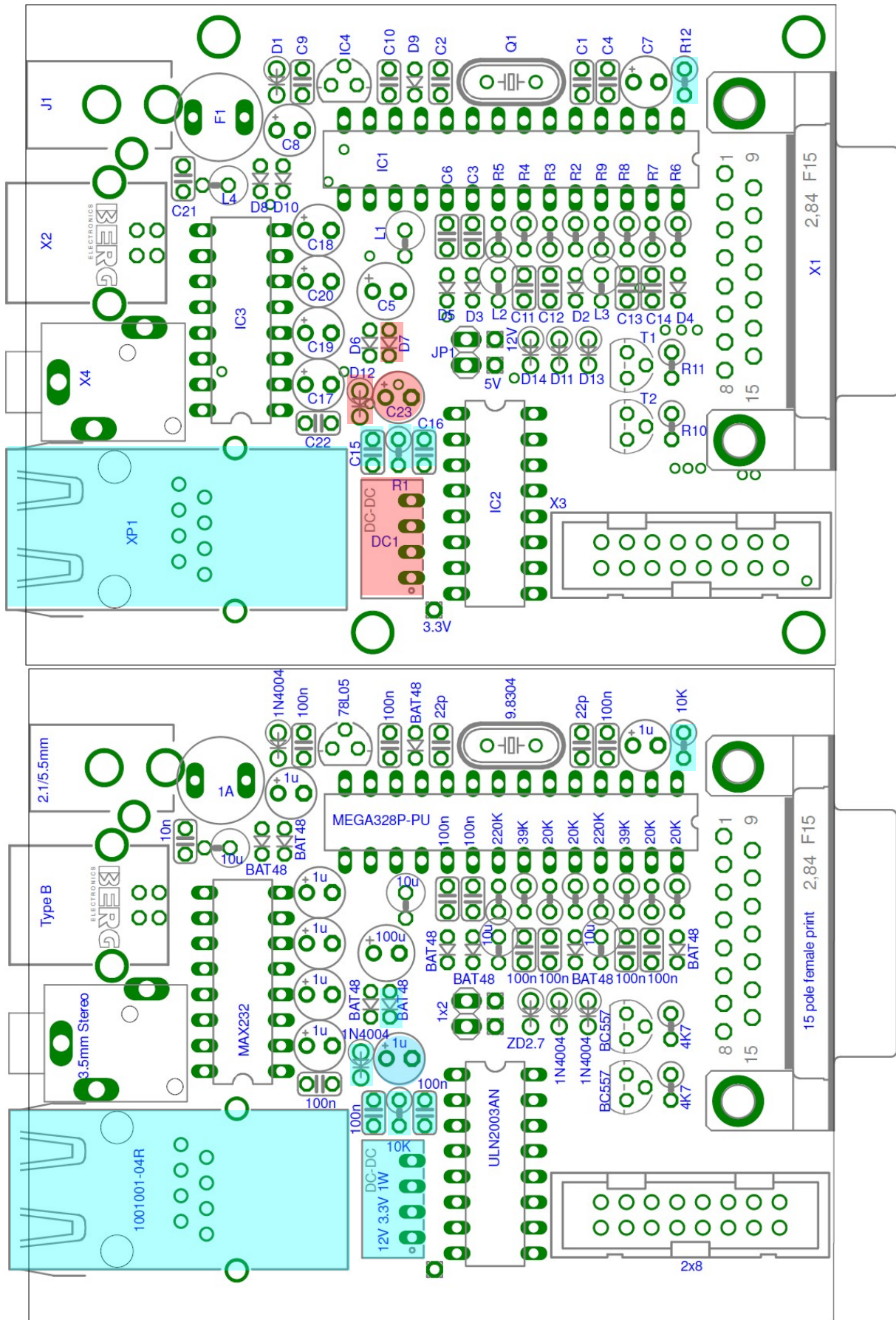
alt.: 10K 1% brown-black-black-red-brown

Capacitors ceramic:

100nF Printing 104

Diodes :



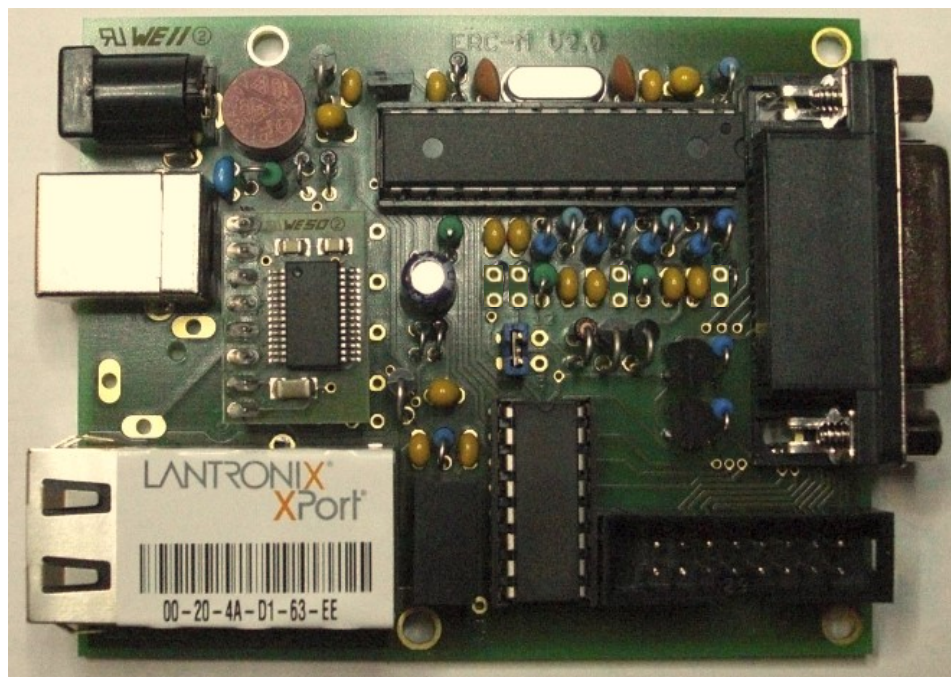




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This is how it should look like:





2. LAN-Interface for ERC-M SMD until V1.2

2.1 Bill of material

The BOM is in the order how you should use the parts.

LAN-Interface for ERC-M SMD Bill Of Material				
QTY	Type	Value	Reference	Comments
2	Capacitor ceramic	100n 50V 20%	C15,C16	
1	Capacitor Tantal	1u 35V 20%	C23	
1	Resistor	10K 5%	R1	alt. 10K 1%
1	Diode	1N4004	D5	alt. 1N4007
1	XPORT	1001001-04R	XP1	
1	DC/DC	12V 3.3V 1W	DC1	
1	Patchcable	2m Crossover		

The LAN-kit comes with an extra Resistor 10K 5% and a Diode BAT54. These 2 parts are not needed for ERC-M SMD. Just drop them.

2.2 Assembly

Assemble and solder the components according to the following drawings. The components to be assembled are marked blue in the following drawings.

Please read the following instructions before you start:

1. The vertical assembled Diodes should have a distance (1-2mm) to the PCB while soldering. Otherwise there is the risk of overheating these components while soldering.

2. Take care of polarization of the following components :

- Diode D5
- DC/DC DC1
- Capacitor tantal C23

Those components are marked red in the following drawing.

It is important to solder the ground-lugs of the XPORT properly as they are used for heat-dissipation from the XPORT to the printed board.

Components :

Colour-code of Resistors:

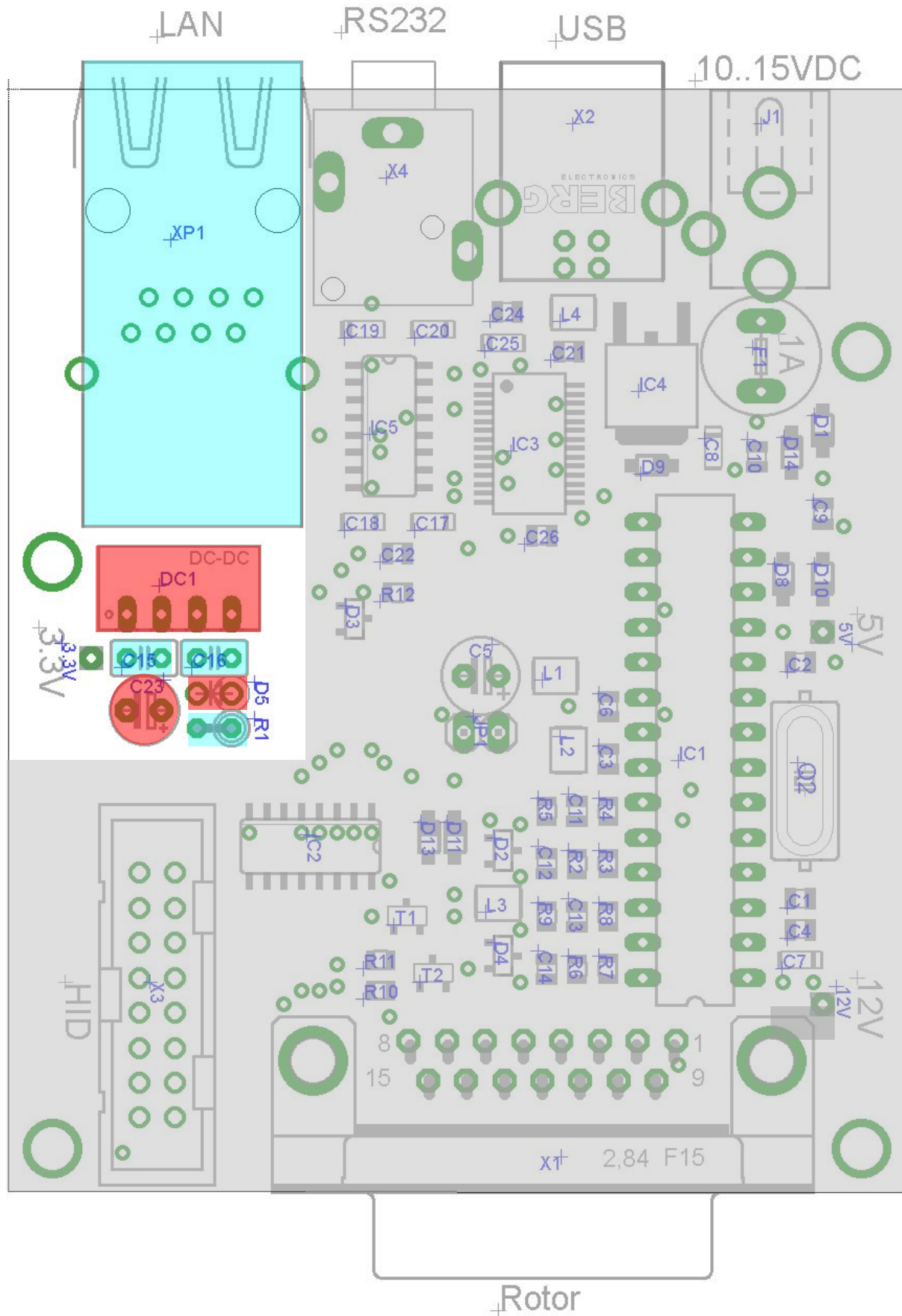
10K 5% brown-black-orange-gold
alt.: 10K 1% brown-black-black-red-brown

Capacitors ceramic:

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Diodes :







3. LAN-Interface for ERC-M SMD from V2.3

3.1 Bill of material

The BOM is in the order how you should use the parts.

LAN-Interface for ERC-M SMD Bill Of Material				
QTY	Type	Value	Reference	Comments
1	XPORT	1001001-04R	XP1	
1	DC/DC	12V 3.3V 1W	DC1	
1	Patchcable	2m Crossover		

The LAN-kit comes with 2 extra Resistor 10K, a Diode BAT54, a Diode 1N4004, 2 Capacitors 100nF, 1 Capacitor 1u. These parts are not needed for ERC-M SMD V2.3. Just drop them.

3.2 Assembly

Assemble and solder the components according to the following drawings. The components to be assembled are marked blue in the following drawings.

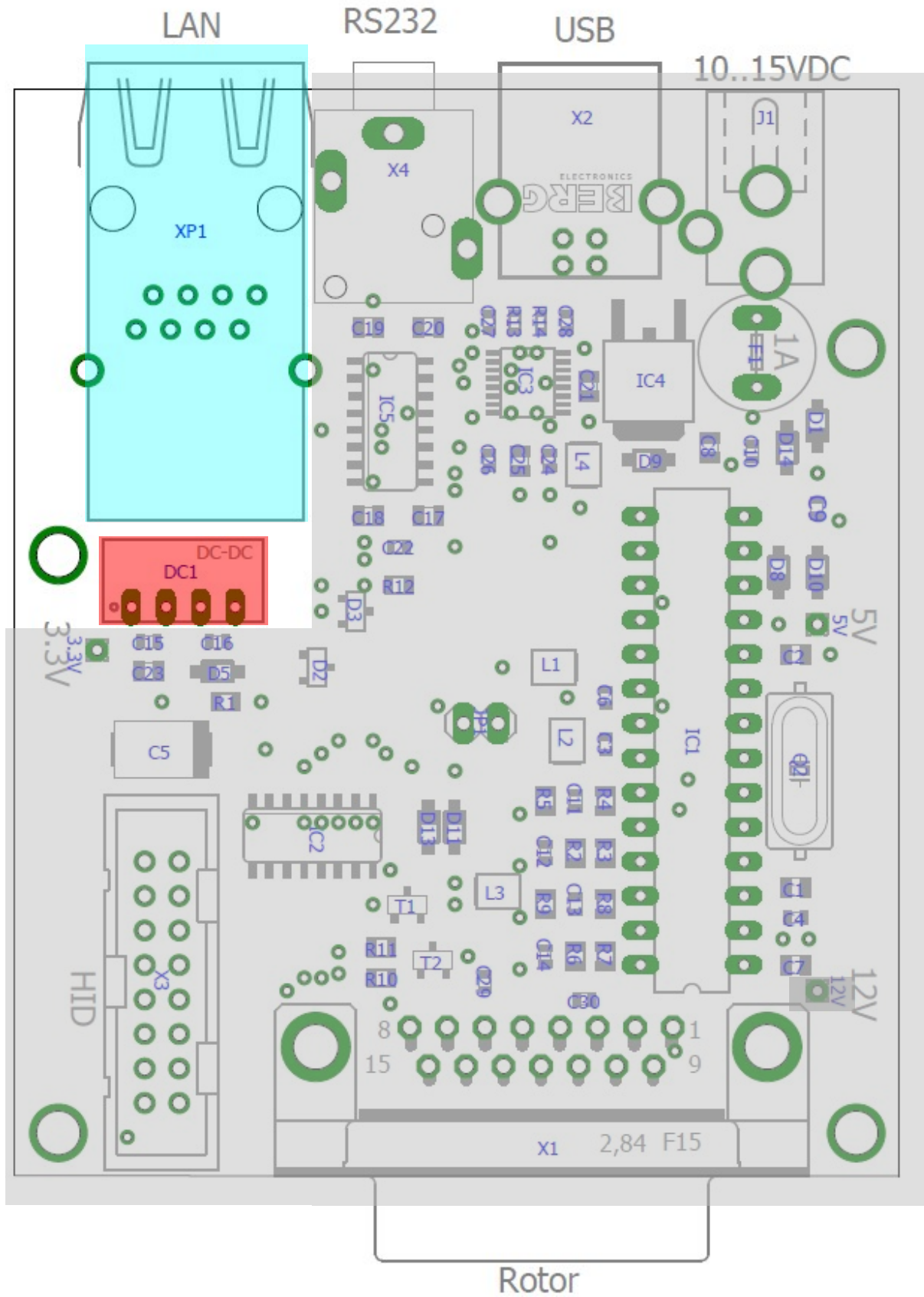
Please read the following instructions before you start:

1. The vertical assembled Diodes should have a distance (1-2mm) to the PCB while soldering. Otherwise there is the risk of overheating these components while soldering.

2. Take care of polarization of the following component:
- DC/DC DC1

This component is marked red in the following drawing.

It is important to solder the ground-lugs of the XPORT properly as they are used for heat-dissipation from the XPORT to the printed board.

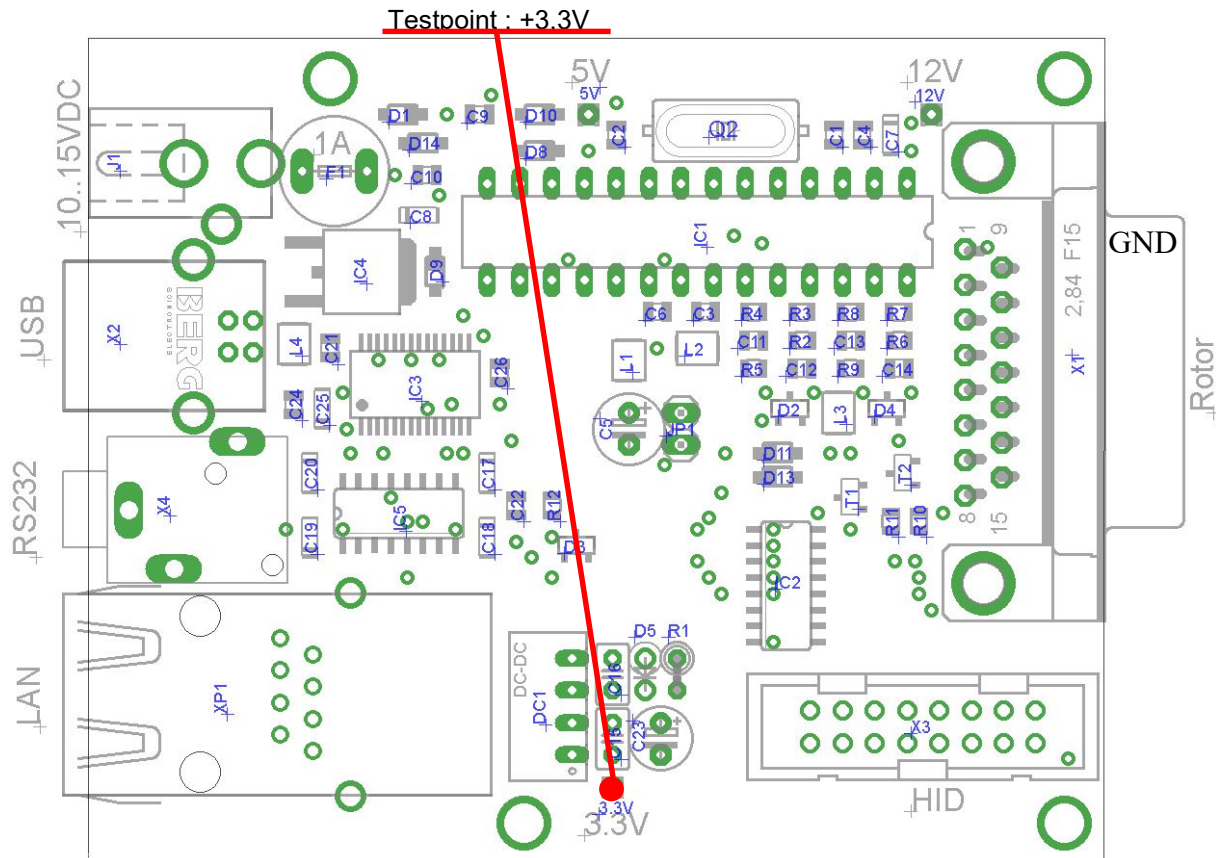




4. Check of the DC/DC-converter

After checking all assembled components for identity, polarization and solder-bridges, connect 10 to 15VDC to connector J1

After connecting DC correctly, you should measure +3.3VDC +/-0.4V at the test-point shown against GND.



5. Device-Installer

The Device-Installer is needed to assign an IP-address to the LAN-Unit:

The Device-Installer is available on the disk supplied with your ERC-M in the LANTRONIX-folder. You may find a newer version on the LANTRONIX homepage at www.lantronix.com.

First connect the ERC-M with the cross-over patch-cable to your PC.

Start the setup with the file: setup_di_x86x64cd_n.n.n.n.exe, where n.n.n.n is the current version.

The unit's IP address is normally set to 0.0.0.0 at the factory. The hardware address is on the product label. The unit is DHCP enabled as the default.

- Click **Start – Programs – Lantronix – DeviceInstaller - DeviceInstaller**. If your PC has more than one network adapter, a message displays. Select an adapter and click **OK**. **Note:** If



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*the unit already has an IP address (e.g., DHCP has assigned an IP-address), click the **Search** icon and select the unit from the list of Lantronix device servers on the local network.*

- Click the **Assign IP** icon .
- If prompted, enter the hardware address (on the product label) in the format 00-20-4a-XX-XX-XX, where the XXs are unique numbers/letters assigned to the product. Click **Next**.
- Select **Assign a specific IP address** and click **Next**.
- Enter the **IP address**. The **Subnet mask** displays automatically based on the IP-address; if desired, you may change it. On a local network, you can leave the **Default gateway** blank (all zeros). Click **Next**.
- Click the **Assign** button and wait several seconds until a confirmation message displays. Click **Finish**.
- Select the XPort from the main window list and click **Tools - Ping**. The results display in the Status area. Click the **Clear Status** button to clear the window so you can ping the device again.
- Click the **Close** button.
- Open the Web Configuration for the device.
- Go to Channel 1, serial settings.
- Mark 'Enable Packing'.
- Confirm with OK.
- Load the new settings with 'Apply settings' to the XPORT.
- Close the Web Configuration and the Device Installer.

In case of any problems, disable the Windows-Firewall during the assignment of the IP-address and repeat the configuration.

6. Installation of the COM-Port-Redirector (CPR)

The CPR is needed to redirect the LAN-device to a virtual-COM-port that can be accessed by the rotor-control-software.

The following items are required to run CPR:

- x86 (32bit): Windows XP, 2003 Server, Vista, 7, 8, 8.1, 2008 Server, 10
- x64 (64bit): Windows Vista, 7, 8, 8.1, 2008 Server, 10
- Microsoft .NET Framework v4.0.
- 30MB free hard drive space.

The "Internet Connection Firewall" must be disabled, or else UDP Ports 30718, 43282, 43283 must be available. Otherwise, you will not be able to detect or communicate with any devices on the network. To configure, go to the Control Panel, go to Network Settings, select the corresponding network adapter, choose Properties, and go to the Advanced tab. You may need to allow these ports access through the corporate firewall as well.

The CPR-software is available on the disk supplied with your ERC-M in the LANTRONIX-folder. You may find a newer version on the LANTRONIX homepage at www.lantronix.com.

Start the setup with the file: setup_cpr_x86x64cd_ n.n.n.n.exe, where n.n.n.n is the current version.

You will find a quick-start-guide for CPR in the LANTRONIX-folder on the CD:
Com-Port-Redirector_QS.PDF

By default, the serial speed of the LAN-device is set to 9600 Baud. If you want to use it with a different speed, as your application doesn't support 9600 Baud, change the speed settings with the Web-interface available through the CRP-software.

As the LAN-device only supports 1 configured speed, it cannot be used with the Service-Tool to



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- change speed of communication
- perform a firmware-update

These actions are only available through the primary interface (USB, RS232).